



► Policy Brief

July 2023

Impacts of the chemical and pharmaceutical industries on the environment and working conditions in Malaysia: Capacity-building of workers' organizations for a Just Transition

Key points

- **Environmental impact assessment (EIA) requirements related to the chemical and pharmaceutical industries.** Under Section 34A of the Environmental Quality Act (1974), the pharmaceutical industry is not subjected to EIA, unless the company operates on a large scale. Meanwhile, chemical industries are subjected to EIA requirements.
- **Main issues related to environmental impacts from the chemical and pharmaceutical industries.** There are public health concerns related to exposure from emissions, negligence among certain companies towards protecting the environment, lack of enforcement of pollution controls, and lack of established relationships between industries and local communities.
- **Occupational safety and health (OSH) practices in the workplace.** Most companies have OSH systems in the workplace to comply with OSH legal requirements or adopt ISO 45001:2018 Occupational Health and Safety Management Systems and/or ISO 14001:2015 Environmental Management Systems. An OSH officer (or equivalent) would be appointed as an individual position to take charge of OSH practices in the workplace, and an OSH Committee would be set up to implement and coordinate OSH practices in the workplace together with representatives of both the employer and the employee.
- **Role of SOHELP in the implementation of OSH in the chemical and pharmaceutical industries.** The Government's Systematic Occupational Health Enhancement Level Programme (SOHELP) is a systematic intervention programme designed to help industries enhance industrial hygiene standards in the workplace and meet regulatory requirements on industrial hygiene-related regulations. Since participation in this programme is on voluntary basis, many companies have not been implementing it.
- **Role of the OSHMP 2020 in OSH implementation in the chemical and pharmaceutical industries.** The main aim of the Occupational Safety and Health Master Plan (OSHMP) 2020 is to build a safe, healthy and productive pool of human capital by creating, cultivating and sustaining a safe and healthy work culture in all organizations throughout Malaysia. The Department of Occupational Safety and Health (DOSH) has initiated different programmes and activities to realize the OSHMP 2020. However, an inclusive plan shall be prioritized to include both small- and medium-sized industries (SMIs) and larger corporate companies.

Key points (continued)

Besides organizing workshops and establishing guidelines, the ILO has actively collaborated with different local and international agencies, non-governmental organizations (NGOs), civil society and government agencies to promote workers' rights from different perspectives.

- **The driving force towards implementing green practices in the chemical and pharmaceutical industries.** Most organizations have not heard about the term "green practices", the Energy Management

Gold Standard (EMGS) or the Greenhouse Gas Assessment Program. Instead, some enterprises use sustainability mapping to identify material assessments and to identify their impact on stakeholders. The top management of enterprises will revisit the relevant Sustainable Development Goal (SDG) targets, related ISO standards, and policies every year to identify whether the current progress achieves the relevant targets applied to the company. Overall, these self-developed initiatives can assist in achieving sustainable business practices.

Introduction

Petroleum and chemicals, including chemical products, plastics and rubber, is one of Malaysia's most valuable strategic industries, contributing 7.3 per cent to GDP in 2021 and employing 425,000 workers, or 2.8 per cent of the 15.3 million total workforce.¹ Chemicals, specifically, was Malaysia's third-highest exporting industry in 2021, contributing 6.0 per cent of the nation's total exports. Despite the COVID-19 pandemic, exports of chemicals and chemical products increased by 39.4 per cent in 2021 from 50.8 billion ringgit in 2020. The same upward trend was observed in the importation of chemicals and chemical products, which increased by 29.9 per cent to 96.5 billion ringgit. The industry was among the major contributors to Malaysia's total approved foreign investments in 2021, with the chemicals and chemical products industry recording a total domestic direct investment (DDI) value of 2.3 billion ringgit.

In Malaysia, many chemical substances and products are being put on the market. As a result, there is uncertainty as to the types of chemicals used in a wide range of consumer products and other products. A large percentage of existing chemicals have not been assessed. There is genuine concern within the Government about human and environmental exposure to toxic substances and the use of unregulated chemicals in a wide range of chemical products. To step up efforts towards a growth scenario that is economically viable, environmentally sustainable, and

socially inclusive and responsible for the safety and health of workers and communities, all stakeholders should be involved in the design and implementation of pathways for sustainable development.

For workers engaged in the industry, the challenge is how to ensure a Just Transition that creates more decent work while limiting adverse impacts on the environment. In navigating such a process, the ILO Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All provide a highly relevant policy framework and practical tools for structuring discussions, actions and investments.² The Guidelines also include mechanisms for social dialogue among government, workers' organizations and employers' organizations throughout policymaking processes at all levels.

This policy brief is developed under the ILO "Making Just Transition Work through Stronger Workers' Organizations in Chemical and Pharmaceutical Industries" project. The project is a response to requests for capacity-building of workers' organizations at the national and sectoral levels. The project aims to support the capacity-building of workers' organizations on a Just Transition and green jobs in order to help initiate social dialogue, strengthen their networks with community-based organizations for joint advocacy and campaigns, and better negotiate with employers on a Just Transition. The project eventually aims to secure a sustainable environment for safer workplaces,

¹ Malaysia, Ministry of International Trade and Industry, *MITI Report 2021*, 2021.

² ILO, *Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All*, 2015.

cleaner production, lower greenhouse gas emissions and decent work in chemical and pharmaceutical sectors.

This policy brief aims to review:

- i. the environmental impact assessment (EIA) systems in Malaysia related to the chemical and pharmaceutical industries;
- ii. occupational safety and health (OSH) policy/programmes/plans in the chemical and pharmaceutical industries;
- iii. the existing regulations and compliance gaps, as well as market forces driving the industry towards sustainable business practices; and
- iv. social dialogue mechanisms.

The brief also analyses the stakeholders' feedback/inputs on environmental challenges and their impacts – particularly in industrial “hot spots” – and how gaps and deficits can be addressed in policy recommendations and through capacity-building activities.

Methodology

The approach of the research includes a desktop review and a focus group discussion (FGD) with representatives from government, workers' organizations, employers' organizations and community-based organizations. The social dialogue mechanisms in the chemical and pharmaceutical industries monitor the implementation of safe work environments as well as environmental impacts stemming from the use of chemical substances. The FGD was facilitated through the development of an interview guide featuring short lists of concrete questions or discussion points for every topic. Data collected from the FGD was analysed and interpreted in order to answer the research questions.

Overview of the chemical industry

The chemical industry in Malaysia comprises diverse sub-sectors, including petrochemicals, oleochemicals, basic industrial chemicals, fertilizers, pesticides, organic chemicals, chemical traders, distributors, and service providers. More than 90 per cent of the companies in the chemical industry are small- and medium-sized enterprises (SMEs), while the remaining comprise multinational companies and sizeable local chemical companies. The sector plays a vital role as a supplier of raw materials and contributes to the manufacturing of finished goods (such as electronics, plastic products, building materials, pharmaceuticals, and so on) and to other economic sectors,

such as agriculture and construction. Industrial chemical workers, in this context, often produce chemical starting materials for another's use. Most chemical workers convert starting products or raw materials into other chemical compounds and derivative products, such as pharmaceuticals, plastics, solvents and paints. Examples of the chemicals and chemical products manufactured in Malaysia are as follows:

- **Inorganic chemicals**
This sector covers the production of chlor-alkali, acids, and some speciality chemicals such as silicates, oxides, hydroxides, acids, electronic chemicals and catalysts.
- **Agricultural chemicals**
There are more than 100 companies in operation in this sector. A large number of these are local companies involved in the mixing and blending or formulation of agricultural chemicals.
- **Industrial gases**
There are more than ten companies in operation producing oxygen, nitrogen, hydrogen, carbon dioxide, acetylene, argon and nitrous oxide. These industrial gases are usually of purity ranging from 99.5 per cent to 99.9 per cent and are used for industrial applications such as welding, cutting, blanketing and hydrogenation.
- **Fertilizers**
Organic fertilizers are produced from agricultural waste. Inorganic fertilizers, also referred as synthetic fertilizers, are manufactured artificially and contain minerals or synthetic chemicals such as phosphorus, potassium and other trace elements. There are more than 20 companies in operation.
- **Paint and printing inks**
There are about 60 manufacturers in operation producing paints and related products such as varnishes, shellacs, lacquers, thinners and printing inks.

Overview of the pharmaceutical industry

In Malaysia, the pharmaceutical industry is one of the new growth areas targeted for promotion and development by the Government. The products manufactured by the Malaysian pharmaceutical industry are broadly categorized into four categories: (i) prescription medicines; (ii) over-the-counter products; (iii) traditional medicines; and (iv) health/food supplements. Pharmaceutical companies in Malaysia are engaged in the production of generic drugs, traditional medicines, and herbal supplements as well as

contract manufacturing for foreign multinational corporations. According to the Drug Control Authority of the Ministry of Health, as of December 2019, there were 263 licensed manufacturers, with 182 (or 69.2 per cent) categorized as producers of traditional medicine, 70 (26.6 per cent) being producers of pharmaceuticals, and 11 (4.2 per cent) being producers of veterinary products.³ Malaysia's trade in pharmaceutical products in 2021 was valued at 25.807 billion ringgit, down 15.86 per cent compared to 30.67 billion ringgit in 2020. Exports grew by 24.1 per cent in 2021 to 2.42 billion ringgit (2020: 1.95 billion ringgit) and imports increased by 48.9 per cent to 12.14 billion ringgit (2020: 8.16 billion ringgit). The Malaysian pharmaceutical industry has the capability to produce almost all dosage forms, including sterile preparations such as eye preparations, injections, soft gelatine capsules and time-release medications.

In January 2002, Malaysia was admitted as the 26th member of the Pharmaceutical Inspection Cooperation/Scheme (PIC/S). The PIC/S provides active and constructive cooperation in the field of Good Manufacturing Practice (GMP) between countries and pharmaceutical inspection authorities. It leads the international development, implementation and maintenance of harmonized GMP Standards and Quality System of Inspectorates in the field of pharmaceutical products. PIC/S membership facilitates the export of Malaysian pharmaceutical products to other member countries, which include European Union Member States, Australia, and Canada.

In an increasingly competitive environment, Malaysia's strong business ecosystem has placed the country on a sound footing as a preferred investment destination. Simultaneously, Malaysia has accelerated efforts to forge new global trade links to bolster economic growth. Potential investment opportunities in the pharmaceutical industry in Malaysia are supported by the following:

- i. supportive government pro-business policies;
- ii. a young, educated and productive workforce;
- iii. developed infrastructure in transportation, communication networks and services;
- iv. well-developed financial and banking sector and extensive trade links;

- v. high quality of life, with excellent housing, modern amenities, good healthcare and medical facilities, and excellent educational institutions for expatriate children.

Environmental impact assessment systems in Malaysia

In Malaysia, environmental impact assessment (EIA) is a statutory requirement for activities that have been prescribed under Section 34A of the Environmental Quality Act (EQA) 1974. Depending on the EIA system, responsibility for producing an assessment will be assigned to one of two parties: (i) the government agency or ministry, or (ii) the project proponent. If EIA laws permit, either party may opt to hire a consultant to prepare the EIA or to handle specific portions of the EIA process, such as public participation or technical studies. Section 34A (2C) of the EQA 1974 (Amendment) 2012 stipulates that any person intending to carry out any of the prescribed activities is required to appoint a "Qualified Person" to conduct an EIA and submit a report to the Director General of the Department of Environment. These "Qualified Persons" are commonly referred to as EIA Consultants.

EIA requirements related to the chemical and pharmaceutical industries

The EIA Order 2015 outlines the requirements for prescribed activities, mainly in Schedule 1 (for projects of small scale or with small significant impact) and Schedule 2 (for large-scale projects or those with large significant impact). From the Schedules, there are two prescribed activities that were found to be related to the chemical industry, which are under the industry section and the waste treatment and disposal activities section. However, there are no prescribed activities stipulated under EIA Order 2015 related to pharmaceutical industries in Malaysia.⁴

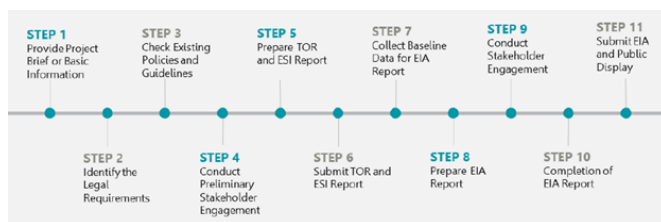
As part of the assessment of the EIA, technical inputs are required for the Local Central Committee (OSC) meetings to determine whether the projects are meeting the corresponding guidelines. These technical inputs may be acquired through site visits by the OSC (if deemed

³ Malaysian Investment Development Authority, *Guide on Pharmaceutical Industry in Malaysia*, 2020.

⁴ Attorney General's Chamber Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015.

necessary). An EIA study should follow a prescribed set of steps or phases highlighted in the EIA guidelines (refer **figure 1**) and that are commonly followed by EIA practitioners and widely adopted by environmental agencies worldwide. Project proponents are required to follow the EIA guidelines in the conduct of the EIA study before commencing the actual project, with the report generated from the EIA study being submitted to Department of Environment (DOE) for evaluation by a committee consisting of many technical agencies to provide inputs on municipality, sewage, hydrology, and so on. Other than the DOE, there are other agencies, NGOs and expert panels who are also involved in reviewing the EIA reports to decide on their acceptability, though the acceptance of the project is still subject to approval at the state level. The final decision on whether to approve a project falls under the OSC meetings chaired by the mayor.

► **Figure 1. Overview of the EIA process**



Source: Malaysia, DOE, 2020.⁵

Compliance gaps in the EIA system

EIAs are required to determine the impacts of new projects on the environment. It is an excellent pre-assessment tool for the proposed project site to decide how severely it will affect the environment and surrounding community. However, enforcement of EIA regulations is not proactive, nor have these regulations been well communicated to other authorities involved in industry development. The conduct of an EIA study can involve many agencies/bodies related to the development and assessment of the EIA report and the enforcement of regulations. Given the complexity involved, an official/formal standard might be considered to assist all parties in fulfilling the required criteria.

Main issues related to environmental impacts from the chemical and pharmaceutical industries

Public health concerns related to exposure to emissions

In many cases, contaminants are released by active industrial sources, either intentionally or accidentally, or are present in accumulated toxic waste from past industrial activities. Industrial activities, especially those of large-scale petrochemical, power generation, heavy industry and mining, cause environmental pressures, with potential adverse effects on the health of local communities through their occupational and residential roles. Assessing the occurrence and extent of the associated health impacts is very difficult for several reasons, including: poor assessment of exposure, unreliable data on emissions and contamination, the presence of multiple substances and combinations of exposures, and the need to consider multiple health endpoints.

Negligence of certain companies towards protecting the environment

Chemical companies, being the key actor in the whole chemical value chain, must self-regulate and play their role in ensuring the safety of their workplaces as well as the health of their employees and the surrounding public. The entire life cycle of a chemical product might affect humans and/or the environment, from the extraction of raw materials all the way to the use of the final product and its disposal. Negative impacts often relate to the mismanagement of waste disposal by industries. When releasing untreated waste into the environment, these chemicals are potentially harmful to both health and the environment. Because of the rapid expansion of industry and negligence towards the environment, the pollution level in nearby industrial watersheds has increased, with contaminated wastewater released from these sectors being dumped into surface water.

Lack of enforcement of pollution controls

There are several standards and regulations available related to pollution control; however in some cases, these

⁵ Malaysia, DOE, *EIA Guidelines: Waste Treatment and Disposal – Sewage*, 2020.

are not being followed by industry and/or there is a lack of enforcement. Complaints from local communities are often not taken seriously by the authorities. Some issues related to the pollution emissions by these industries have been raised by the local communities, for example, release of smoke and waste dumping, especially during rainy days. The involvement of third parties and overall integrity issues make it so certain industries can get away with these pollution issues. There are also reports that awareness on pollution levels among many communities is still low. Therefore, these issues need to be tackled to make sure that the pollution emissions are under control and to reduce the impacts faced by local communities.

Lack of established relationships between industry and local communities

It is reported that there is no or low level of relationship between the target industries and local communities. Certain companies manipulate the situation to their advantage by falsely stating that current conditions are safe and by providing incorrect information.

There is also a lack of industry awareness programmes within local communities, as this appears to not be a priority among industry players with regard to engaging with the communities in which they operate. Companies sometimes let local communities visit the factory; however, they are not exposed to the actual processes or activities carried out in the factory.

Ways to address environmental impacts from the chemical and pharmaceutical industries

Raising of public complaints and legal action

There are many actions taken by local communities, such as through filing legal actions against the companies, attending public hearings or the annual general meeting of the companies, and organizing rallies to raise community concerns over the impacts from the industry. However, sometimes the authorities have been very slow to follow up on these community actions. It is also reported that community complaints have simply been ignored without any further action taken. In addition, there are concerns over the well-being of those who make complaints, and to this end the identity of the person(s) who made the

complaint should be protected by the authorities at all times.

Implementation of pollution control strategies

Most factories are located in industrial areas, where all the control measures concerning environmental discharges and effluents would be monitored by local authorities and strictly controlled by the companies according to the relevant standards. Pollution control could be achieved through a number of different measures: (i) control at the source, where updated control systems should be utilized; (ii) providing regular pollution control-related training to workers; and (iii) instilling environmental awareness and culture among employers.

Employment of competent persons and pollution control equipment

Employers have the responsibility to employ competent persons to manage scheduled wastes, emissions and wastewater in response to requirements of the EQA 1974. Subsidiary legislation for such controls – including the Environmental Quality (Industrial Effluent) Regulations 2009 for wastewater, the Environmental Quality (Clean Air) Regulations 2014 for emissions, and the Environmental Quality (Scheduled Wastes) Regulations 2005 for scheduled wastes are enforced to highlight employer's responsibility to employ competent persons for the relevant tasks; to provide all necessary equipment to ensure pollution management control is well-maintained; to engage in proper record management; and to engage in voluntary self-reporting to the DOE.

Occupational safety and health (OSH) practices in Malaysia

According to Occupational Safety and Health (Amendment) Act 2022, the OSH implementation at the workplace shall be based on the principle of self-regulation, that is, control of the process or activity being handled by the people or organization involved in it rather than by an outside organization, such as the Government. Most industries that comply with the Occupational Safety and Health Act (OSHA) and regulations are simultaneously adopting systems based on the following international standards: ISO 45001:2018 (Occupational Health and Safety Management Systems) and/or ISO 14001:2015 (Environmental Management Systems). Based on the

guidelines and codes of practices recommended by the Department of Occupational Safety and Health (DOSH), self-regulation should be practicably implemented through an OSH Coordinator established by the employer to create and maintain OSH-related arrangements. This will enable the employer and employees to cooperate effectively in promoting, developing and checking workplace OSH measures sustainably.

To ensure that employers and employees know, understand and comply with the provisions stipulated in the legislation, multinational companies operating in Malaysia are highly recommended to commit to the Responsible Care Program (RCP) as part of the chemical industry's commitment to improve chemical enterprises' public image as well as their performance in health, safety and environmental aspects.

Main challenges in the implementation of OSH at the workplace

Non-compliance

According to statistics from DOSH, about 9,500 (81 per cent) of the 11,500 audited workplaces in industrial sectors exceeded the target of 80 per cent compliance in 2022, with OSH compliance in the chemical and pharmaceutical industries scoring just 68 per cent. The 80 per cent OSH compliance rate for 2022 across all industrial sectors appears to be the target, with that rate sitting at 79 per cent in 2021 and 81.54 per cent in 2020.

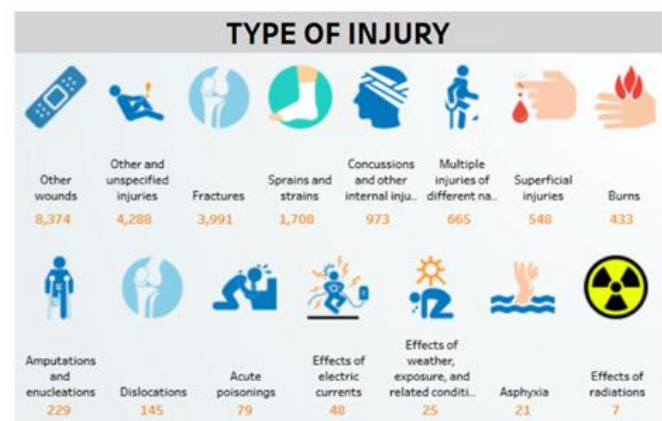
The prosecution of cases under OSH legislation indicates the common forms of non-compliance with regulations. Based on past studies,⁶ the three most frequent forms of non-compliance with OSH legislation in Malaysia are:

- Occupational Safety and Health Act (OSHA), section 15 – the duty of employers and self-employed persons to ensure, so far as is practicable, the safety, health and welfare at work of all their employees.
- OSHA, section 29 – to employ a competent person to act as a safety and health officer at the place of work.
- OSHA, section 32 – to notify the nearest occupational safety and health office of any accident, dangerous

occurrence, occupational poisoning or occupational disease which has occurred or is likely to occur at the place of work.

Negligence towards OSH compliance can lead to occupational injuries and diseases at the workplace. Among the main type of injuries suffered across all industries are “Other Wounds or Injuries” (8,374 cases) such as open wounds, scalp wounds, loss of nails or ears, followed by “Other and Unspecified Injuries” (4,288 cases) and Fractures (3,991 cases). Most occupational injuries involve the Upper Limb (8,819 cases), such as fingers, hands and shoulders; Lower Limb (4,154 cases) such as legs and knees; and Multiple Locations (2,676 cases) (**figure 2**).

► **Figure 2. Number of occupational injuries by type, 2021**

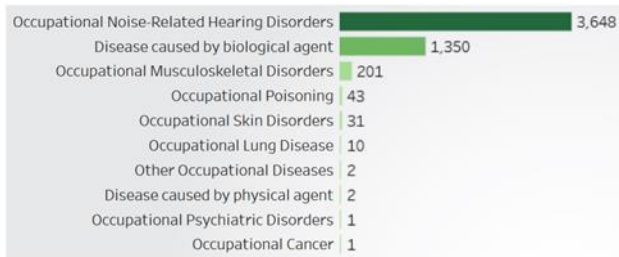


Source: Malaysia, Department of Statistics Malaysia, 2021.⁷

Statistics also recorded a total of 5,289 cases of occupational disease confirmed by DOSH in 2021 across all industries. Among the three highest categories of occupational disease are Occupational Noise-Related Hearing Disorder of 3,648 cases; diseases caused by Biological Agents (1,350 cases); and Occupational Musculoskeletal Disorders (201 cases). The occupational diseases with the lowest recorded numbers in 2021 were Diseases caused by Physical Agent (2 cases), Occupational Psychiatric Disorders (1 case), and Occupational Cancer (1 case) (**figure 3**).

⁶ Hamid, A.R.A. et al., “Noncompliance of the Occupational Safety and Health Legislation in the Malaysian Construction Industry”, IOP Conference Series: Earth and Environmental Science 220 (2019), 012043.

⁷ Malaysia, Department of Statistics Malaysia, *Big Data Analytics: National Occupational Accident and Disease Statistics*, 2021.

► **Figure 3. Number of Occupational Disease by Disease Category, 2021**

Source: Malaysia, Department of Statistics Malaysia, 2021.

OSH challenges related to the employ of migrant workers

The Statistics Department of Malaysia has recorded 2.1 million foreign workers working in various sections in Malaysia as of June 2022. Companies have taken several measures to reduce the OSH knowledge gap and promote an OSH-focused attitude among migrant workers. Nevertheless, language barriers and behaviour-based issues represent the main challenges in implementing OSH among migrant workers. The language barrier contributes to the inability of migrant workers to fully comprehend certain instructions or warnings. In addition, migrant workers' lack of awareness pertaining to workplace risks, their risk perceptions, their fondness of working overtime, as well as lack of concern over their own health conditions have also become main factors towards occurrence of occupational accidents among migrant workers.

Working overtime and extreme stress among Malaysian skilled workers and migrant workers

Most enterprises have restricted timeframes for overtime work shifts. A normal working shift is 8 hours, and overtime usually is around 2–3 hours extra, and by law cannot exceed 104 hours in a month. In general, Malaysian and migrant workers do not make complaints about working overtime and the extreme stress that can result. Rather, workers typically insist on extra overtime due to the monetary incentives involved.

From an employee perspective, overtime provides an opportunity to earn more income but also represents a loss of free time. Generational differences in important life values and work attitudes have found that some employees jump at the chance to make more money, but others may prefer to go home to spend time with their families.

Even though there is little to no complaints regarding working overtime and extreme stress among workers, this work culture can still have negative impacts on workers' physical and mental health. As no time limit is set on working hours, there is a need for a refined, worker-oriented work policy.

Initiatives to improve implementation of OSH at the workplace

Role of SOHELP in the implementation of OSH in chemical and pharmaceutical industries

The Systematic Occupational Health Enhancement Level Program (SOHELP) has been introduced by DOSH to improve workers' safety and health and has been promoted to other countries through events and conferences (CHEMCON, ILO). The programme has been statistically proven to enhance occupational health among participating companies. SOHELP prioritizes three elements in the workplace – ergonomics, chemicals and noise – and it is an action-oriented programme that helps to identify weaknesses and improve them immediately. The programme has proven its effectiveness through audit inspections, as enterprises that implemented SOHELP have shown better OSH compliance compared to enterprises that have not participated.

Role of the OSHMP in the implementation of OSH in chemical and pharmaceutical industries

The Occupational Safety and Health Master Plan (OSHMP) is a strategy and programme formulated to further boost national OSH to a greater level to protect the nation's human resources. There are five strategies in OSHMP, which cover all sectors, including the chemical and pharmaceutical industries. These strategies are focused on: (i) the government leadership; (ii) strengthening OSH management at the workplace; (iii) OSH sharing and networks; (iv) mainstreaming of industrial hygiene; and (v) international OSH strategic alliances. The latest version of the Master Plan (OSHMP 2025) has modules involving top management, which will be officiated and initiated in the year 2023.

Role of the ILO in protecting workers' rights

In an effort to promote health and safety at work, the ILO has come out with a series of Conventions and codes of

practices relating to every area of economic activity. Among others are the two following Conventions, which have recently been made fundamental Conventions, demonstrating the ILO's commitment to safety and health as essential components of the world of work:

- Occupational Safety and Health Convention, 1981 (No. 155); and
- Framework for Occupational Safety and Health Convention, 2006 (No. 187).

Through its ratification of ILO Convention No. 187, Malaysia has improved its OSH practices through the OSHMP 2015 and OSHMP 2020. While Malaysia is currently in the process of ratifying ILO Convention No. 155, the enactment and enforcement of the OSHA 1994 and the activities carried out to achieve the objects of this Act are evidence of efforts to comply with the articles set out under Convention No. 155.

Ways to address the issue regarding OSH compliance

Role of the Department of Labour (JTK) in OSH compliance

JTK enforces the labour laws and international treaties, such as the Employment Act 1955 and the Employees' Minimum Standards of Housing, Accommodations and Amenities Act 1990. In general, JTK focuses more on enforcement. Consequently, JTK, DOSH, and the Social Security Organization (SOCSO) are proposing a submission system to facilitate reporting of accidents, occupational diseases, and occupational poisoning, which will be ready at the end of next year (2023).

Resource shortages related to OSH compliance among workers

The OSHMP 2025 includes as one of its strategies the promotion of education and research on OSH, with activities organized to encourage industries to provide training to workers. Nevertheless, the number of employers sent their employees to OSH Training has not seen increased over the year.

Though it is indirectly related to OSH, environmental affairs are often discussed in the same committee with OSH to resolve cases related to environmental management, whereby the relevant department (typically the DOE)

provides competent person programmes that organize courses for persons in charge in industries to handle matters related to environmental management in order to ensure they have initiatives to regulate their workplace in accordance with the Environmental Quality Act.

Negative impacts faced by communities due to industry non-compliance with OSH regulations

The negative impacts experienced by communities often relate to the mismanagement of waste disposal by enterprises, and thus require the intervention of related departments (such as the DOE) to control illegal dumping. To this end, the DOE prioritizes premises or factories experiencing issues related to pollution management, with these enterprises being provided with focused enforcement programmes to ensure compliance with existing laws and regulations, as well as to provide competency training to ensure better understanding of the relevant laws. A community awareness programme (CEPA) aimed at the public or the industry is also provided to assist them in reporting cases of OSH non-compliance via online channels or through direct contact with a state DOE officer. In addition, the DOSH has introduced and provided a self-assessment form/checklist and guiding notes to assist industries in reducing non-compliance in the workplace. Technologies such as body cameras and tablets are provided for the use of machinery inspections and data collection to save time and ensure quick assessment. Guiding notes are also provided on how to fill in the checklist for better enable enterprise compliance.

Nurturing public awareness concerning OSH compliance

Cooperation is required between mass media and TV stations to provide clarification and explanation to the people to be aware of their roles and responsibilities and the issues of concern that surround them. In addition, webinars and engagement programmes (such as SOHELP) are conducted to encourage the involvement of industries in ensuring compliance and enforcement of OSH. From the perspective of local councils, enforcing OSH standards of the related industries is of utmost importance.

Driving force towards implementing green practices in the chemical and pharmaceutical industries

Role of ESG in the workplace

ESG – short for environment, social and corporate governance – is a business framework that links environmental and social concerns with enterprise policy and governance. The environment component of the framework considers matters such as waste management, resource depletion, greenhouse gas emissions, deforestation, and climate change. The social component refers to working conditions and health and safety (among others). And the governance component includes enterprise strategy, executive remuneration, corruption and bribery, broad diversity and structure.

The principles behind an ESG framework are therefore broad, and encompass regulatory areas covered by a wide range of government agencies. To this end, any policy decision related to these areas should be presented by the Higher Ministry with subordinate agencies bearing the roles of enforcement following these instructions in order to ensure that the ESG policy is achieved by the year 2030. ESG brings both direct and indirect impacts on the economy, and its requirements can be covered through the ratification of multiple international labour Conventions.

Role of the Sustainable Development Goals in achieving sustainable practices

A number of activities and programmes, such as the responsible care programme by the Chemical Industries Council of Malaysia (CICM), are being implemented in support of the Sustainable Development Goals (SDGs), particularly SDG 3: Good Health and Well-being (specifically target 3.9, which is to substantially reduce the number of illnesses and deaths from hazardous chemicals and air, water and soil pollution and contamination by 2030) and SDG 8: Decent Work and Economic Growth (particularly target 8.8, which to protect labour rights and promote safe and secure working environments for all workers, including migrant workers, particularly women migrants, and those in precarious employment). All 17 SDGs are interrelated with chemicals. Nevertheless, corporate social responsibility (CSR) and the SDGs are ultimately only codes to promote sustainability through ethical and moral

compliance, which should be emphasized in an altruistic manner.

Implementation of corporate sustainability performance

In Malaysia, the concept of corporate sustainability is still implemented on a voluntary basis. Corporate sustainability is essential to achieve the organization's vision without losing the competitive advantage while ensuring its economic growth, environmental stewardship, and social responsibilities without contradicting from its mission and goals. Corporate sustainability performance reflects the ability of an organization in using its limited resources efficiently and effectively over time, through consideration of economic (cutting down on costs at various points of consumption), environmental (reducing pollution, executing proper waste management, reduction of environmental accidents, increased energy savings, and so on) and social (working conditions, health and safety, wellness, diversity, human rights, fair labour practices, community engagement, philanthropy, and so on) sustainability performance.

Government initiatives toward sustainable practices

There are various initiatives that have been conducted by the Government according to its Green Industry priorities in the Twelfth Malaysia Plan, 2021–2025 to encourage chemical/pharmaceutical industries moving towards more sustainable business practices, such as the MyHIJAU programme, Green Incentive, Energy Management Gold Standard (EMGS), Green Academy and Greenhouse Gas Assessment Program. Awareness-raising should be prioritized so that enterprises can enhance their knowledge and attitudes towards green practices, greenhouse gas assessment and management, and responsible energy consumption and management in their workplaces. Sustainable industries can be achieved through the collaboration of all stakeholders, namely the industries, the authorities and communities. Apart from the established standards/regulations, enforcement by and integrity among all are needed to achieve the aim of developing sustainable industries.

Recommendations

With aim of ensuring a Just Transition that creates decent work while tackling the impacts of the chemical and pharmaceutical industries on the environment, the following recommendations are put forward.

For government agencies

- Government should actively review the laws and regulations to effectively accommodate and further address transitional issues concerning the environment. EIA requirements shall also be reviewed to better establish a common ground in balancing the needs and benefits between the industrial activities and the existing environment, which compulsorily require the participation and views of the government agencies, project initiators and the local community.
- Government should include pharmaceutical industries on the list of prescribed activities that require EIAs, after much proper evaluation, assessment and consideration.
- Government should consistently communicate the OSH policy/programme/plan/practices at the managerial level to industrial players (employers) and workers (employees) via a variety of channels and agencies. Government should also constantly recognize and find ways to implement national programmes or strategies as collaboratively processed and agreed with international organizations.
- Government should reform laws and acts to improve and update them so that they are consistent with the terms of international treaties ratified by Malaysia.
- Government should improve complaint mechanisms from the local communities to enable them to voice concerns related to pollution stemming from the chemical and pharmaceutical industries.

For the chemical and pharmaceutical industries

- Strictly comply with the existing legal framework and share best practices with other industrial players to ensure sustainable health and safety practices as well as sustainable environmental practices.
- Actively participate in global or local OSH-themed conferences to further embrace and empower the concepts of OSH compliance to facilitate effective implementation of OSH attributes in industry sectors.
- Consider the implementation of initiatives around health and welfare, safety behaviour, and safety culture, and

provide adequate budgetary allocations for the same, even if the enterprise has already implemented an OSH system in the workplace, so as to better safeguard workers' health and well-being.

- Initiate a capacity-building programme/framework to ensure efficient and sustainable environmental, health and safety (EHS) development, and to further strengthen the capacity of chemical and pharmaceutical enterprises in enhancing environmental protections and preventing occupational accidents.
- Establish relationships between the industry/enterprises and communities especially in relation to safety and health.

Other recommendations

- Adopt ESG as a practice to cultivate OSH compliance nationwide.
- Corporate Sustainability Performance should be utilized as an evaluation tool, as well as a performance indicator to monitor and assess the sustainability performance of the chemical and pharmaceutical industries.
- Awareness among local communities should be fostered to reduce their exposure to pollutants so as to avoid adverse impacts, especially related to health.

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Contact details

International Labour Organization
Regional Office for Asia and the Pacific
United National Building
Bangkok 10200, Thailand

T: +6622881234
E: greenjobsap@ilo.org
W: ilo.org/asiapacific